Abstract of the Disclosure

A differential motion machine for closely simulating natural human motion is provided. A user mountable carriage is designed to slide freely, in the fore and aft directions. The carriage contains a power transfer element, such as pedals, arm levers or the like, which convert the user's motions into a means for propelling the carriage relative to a dynamic element. A dynamic element generally consists of an endless belt or the like driven by a motor or by a slight incline to a base frame which engages the power transfer element. Additionally, a force element causes a force against the carriage preferable relative to the dynamic element. This force to the carriage simulates the drag and other resistances encountered in nature.